AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1-17. (Cancelled).

18. (Currently Amended) A magnetic device comprising a spin valve, said spin valve comprising a plurality of layers arranged in a stack which in turn comprises at least one free magnetic layer able to be associated to a temporary magnetisation (MT), a spacer layer and a permanent magnetic layer associated to a permanent magnetisation (MP),

wherein said spacer layer is obtained according to a method of manufacturing a magnetoresistive element comprising regions having metallic conduction and regions having semi-conductive conduction wherein said method comprises the following operations:

- forming metallic nanoparticles to obtain said regions with metallic conduction;

- providing a semiconductor substrate;

- chemically etching the semiconductor substrate to form pores in said semiconductor substrate; and

- applying said metallic nanoparticles to said semiconductor substrate having pores in order to obtain a disordered mesoscopic structure, and

wherein said spacer layer comprises a matrix and nanoparticles, said matrix being a matrix of nano-porous material obtained by electrochemical assembly.

19. (Cancelled).

20. (Currently Amended) A device as claimed in claim 18~~19~~, wherein said matrix is a matrix of dielectric material.

21. (Currently Amended) A device as claimed in claim 18~~19~~, wherein said matrix comprises a porous dielectric material comprising ~~porous alumina or~~ porous silicon, and the nanoparticles are contained in pores of said porous dielectric material.

22. (Previously Presented) A device as claimed in claim 18, wherein the device is configured to regulate its electrical properties through the composition of said spacer layer.

23. (Previously Presented) A device as claimed in claim 18, wherein the device is employed in TMR applications.

24-41. (Cancelled).

42. (Currently Amended) A magnetic device comprising a spin valve, said spin valve comprising a plurality of layers arranged in a stack which in turn comprises at least one free magnetic layer able to be associated to a temporary magnetisation (MT), a spacer layer and a permanent magnetic layer associated to a permanent magnetisation (MP),

wherein said spacer layer is obtained according to a method of manufacturing a magnetoresistive element comprising regions having metallic conduction and regions having semi-conductive conduction wherein said method comprises the following operations:

- forming metallic nanoparticles to obtain said regions with metallic conduction;

- providing a semiconductor substrate;

- chemically etching the semiconductor substrate to form pores in said semiconductor substrate; and

- applying said metallic nanoparticles to said semiconductor substrate having pores in order to obtain a disordered mesoscopic structure,

wherein said spacer layer comprises a matrix and nanoparticles, and

wherein said matrix comprises a porous dielectric material comprising ~~porous alumina or~~ porous silicon, and the nanoparticles are contained in pores of said porous dielectric material.

43. (Previously Presented) A device as claimed in claim 42, wherein the device is configured to regulate its electrical properties through the composition of said spacer layer.

44. (Previously Presented) A device as claimed in claim 42, wherein the device is employed in TMR applications.

45. (Previously Presented) A device as claimed in claim 18, wherein the substrate after being subjected to chemical etching to form pores is a nano-porous substrate.

46. (New) A device as claimed in claim 18, wherein the pores contain metallic nanoparticles in column structure obtained by electrodeposition.

47. (New) A device as claimed in claim 42, wherein the pores contain metallic nanoparticles in column structure obtained by electrodeposition.